

**APPENDIX 7**  
**GLOSSARY**



**Accessible Forest Land** – Land that is within sampled area (the population of interest), is accessible and can safely be visited, and meets at least one of the two following criteria:

- a) the condition is at least 10-percent stocked by trees of any size (appendix 3) or has been at least 10-percent stocked in the past. Additionally, the condition is not subject to nonforest use(s) that prevent normal tree regeneration and succession such as regular mowing, grazing, or recreation activities, or
- b) in several western woodland types where stocking cannot be determined, and the condition has at least 5 percent crown cover by trees of any size, or has had at least 5 percent cover in the past. Additionally, the condition is not subject to nonforest use that prevents normal regeneration and succession such as regular mowing, grazing, or recreation activities.

**Accessible Other Forest Land** – Land that meets the definition of accessible forest land, but is incapable of producing 20 cubic feet per acre per year of industrial wood under natural conditions, because of adverse site conditions (SITE CLASS = 7). Note: adverse conditions include sterile soils, dry climate, poor drainage, high elevation, steepness and rockiness

**Accessible Timberland** – Land that meets the definition of accessible forest land and is capable of producing at least 20 cubic feet per acre per year of industrial wood under natural conditions. (SITE CLASS = 1-6)

**ACTUAL LENGTH** – For trees with broken or missing tops. The actual length of the tree is recorded to the nearest 1.0 ft from ground level to the highest remaining portion of the tree still present and attached to the bole. If the top is intact, this item may be omitted. Forked trees should be treated the same as unforked trees.

**Agricultural Land** – Land managed for crops, pasture, or other agricultural use. Evidence includes geometric field and road patterns, fencing, and the traces produced by livestock or mechanized equipment. The area must be at least 1.0 ac in size and 120.0 ft. wide at the point of occurrence.

**Annular Plot** – A circular, fixed area plot with a radius of 59.0 feet. Annular plots may be used for sample intensification or for sampling relatively rare events.

**ARTIFICIAL REGENERATION SPECIES** – Indicates the predominant species that is planted or seeded in an artificially regenerated condition.

**Blind check** – a re-installation done by a qualified inspection crew without production crew data on hand; a full re-installation of the plot for the purpose of obtaining a measure of data quality. The two data sets are maintained separately. Discrepancies between the two sets of data are not reconciled. Blind checks are done on production plots only.

**BOARD-FOOT CULL** -- Solid wood cull due to sweep, crook and excessive knot collars, as well as unsound cull due to rotten or missing wood. Board-foot cull is expressed as a percentage of the sawlog portion of the tree.

**Bole** – The main stem of a tree, extending from one foot above the ground to the point on the tree where DOB reaches 4 inches

**Boundary** – The intersection of two or more conditions on a subplot or microplot. Each boundary is described by recording the azimuth and horizontal distance from the subplot or microplot center to the left and right points of where the boundary intersects the perimeter of the subplot or microplot. An azimuth and distance to a corner point may also be described, if one exists. If multiple boundaries exist at a subplot, they are recorded in the order of their occurrence on the subplot, starting from north and proceeding around the compass.

**Census Water** – Rivers and streams that are more than 200 feet wide and bodies of water that are greater than 4.5 acres in size.

**Certification plot** – a plot installed by a certification candidate. It may be a training plot or a production plot. The candidate working alone installs the plot.

**Cold check** – an inspection done either as part of the training process, or as part of the ongoing QC program. Normally the installation crew is not present at the time of inspection. The inspector has the completed data in-hand at the time of inspection. The inspection can include the whole plot or a subset of the plot. Data errors are corrected. Cold checks are done on production plots only.

**CONDITION CLASS** – The combination of discrete landscape and forest attributes that identify and define different strata on the plot. Examples of such attributes include condition status, forest type, stand origin, stand size, owner group, reserve status and stand density.

**CONTIGUOUS FOREST LAND** – Forested areas with tree cover =120 feet wide. Boundaries are non-forested areas =120 feet wide. Boundaries are not defined by ownership, forest type, or age class. Rights-of-way (powerline, pipeline, woods road, improved road) are not boundaries unless the cleared area between trees is =120 feet in width.

**Cropland** – Land under cultivation within the past 24 months, including orchards and land in soil improving crops, but excluding land cultivated in developing improved pasture.

**CROWN CLASS** – A classification of trees based on dominance in relation to adjacent trees within the stand as indicated by crown development and the amount of sunlight received from above and sides.

**Cruising stick** – Stick marked at 4.5 feet used to locate DBH.

**CUBIC-FOOT CULL** – An assessment of the rotten, missing, or otherwise defective portions of a tree bole that are unsuitable for industrial wood products. Cubic-foot cull is expressed as a percentage of the entire bole.

**Cull** – Portions of a tree that are unusable for industrial wood products because of rot, form, or other defect. (See cubic-foot cull and board-foot cull.)

**Diameter at Breast Height (DBH)** – The diameter of the bole of a tree at breast height (4.5 feet above the ground), measured outside of the bark.

**Diameter at Root Collar (DRC)** – The diameter of a tree measured at the ground line or stem root collar, measured outside of the bark.

**Diameter Outside Bark (DOB)** – A diameter that may be taken at various points on a tree, or log, **outside** of the bark. Diameter Outside Bark is often estimated.

**Face** -- A section of the tree surface (usually within the butt sixteen feet) that is  $\frac{1}{4}$  of the circumference of the tree and extending the full length of the log.

**Federal Information Processing Standard (FIPS)** – A unique code identifying U.S. States and counties (or units in Alaska).

**Forest Industry Land** – Land owned by companies or individuals that operate wood-using plants.

**Forest Land** – Land that is at least 10 percent stocked by forest trees of any size, or land formerly having such tree cover, and is not currently developed for a nonforest use. The minimum area for classification as forest land is one acre. Roadside, stream-side, and shelterbelt strips of timber must have a crown width at least 120 feet wide to qualify as forest land. Unimproved roads and trails, streams and other bodies of water, or natural clearings in forested areas shall be classified as forest, if less than 120 feet in width or an acre in size. Grazed woodlands, reverting fields, and pastures that are not actively maintained are included if the above qualifications are satisfied. (Also see definitions of nonforest land, idle farmland and improved/maintained pasture.)

**Forest Trees** – Plants having a well-developed, woody stem and usually more than 12 feet in height at maturity.

**FOREST TYPE** – A classification of forest land based upon the trees or tree communities that constitute the majority of stocking on the site.

**GPS** – Global Positioning System. Information from this system is collected and used to determine the latitude and longitude of each plot.

**Growing Stock Tree** – Trees with one-third or more of the gross board foot volume in the entire sawlog section with commercial logs meeting grade soundness, and size requirements or the potential to do so for poletimber-sized trees. A TREE CLASS = 2 must have one 12-foot log or two 8-foot logs, now or prospectively, for live poletimber-sized trees to qualify as growing stock. Mortality pole size trees can never grow to be sawlog size, so are never TREE CLASS = 2.

**Hardwoods** – Dicotyledonous trees, usually broad-leaved and deciduous.

**Hot check** – an inspection normally done as part of the training process. The inspector is present on the plot with the trainee and provides immediate feedback regarding data quality. Data errors are corrected. Hot checks can be done on training plots or production plots.

**Idle Farmland** -- Former cropland or pasture that has not been tended within the last 2 years and that has less than 10 percent stocking with live trees.

**Improved Pasture** -- Land that is currently maintained and used for grazing. Evidence of maintenance, besides the degree of grazing, includes condition of fencing, presence of stock ponds, periodic brush removal, seeding, irrigation, or mowing.

**Inclusion** – An area that would generally would be recognized as a separate condition, except that it is not large enough to qualify. For example, a ½ acre pond within a forested stand.

**Industrial Wood** – All roundwood products, except firewood.

**Inspection crew** – a crew of qualified QC/QA individuals whose primary responsibility is the training, certification and inspection of production crews.

**Intensification plots** – additional points that are photo interpreted for forest or nonforest land use and checked on the ground for detailed land use. These samples are used to strengthen the ground check of the photo interpretation.

**Land Area** – As defined by the Bureau of the Census: The area of dry land and land temporarily or partially covered by water such as marshes, swamps, and river flood plains (omitting tidal flats below mean tide); streams, sloughs, estuaries and canals less than 200 feet in width, and ponds less than 4.5 acres in area.

**Limbs** – That part of a tree above the stump which does not meet the requirements for sawlog and upper-stem portions, including all live, sound branches to a minimum of 4 inches DOB at the knot collar.

**Maintained Road** – Any road, hard topped or other surfaces, that is plowed or graded periodically and capable of use by a large vehicle. Rights-of-way that are cut or treated to limit herbaceous growth are included in this area.

**Marsh** – Low, wet areas characterized by heavy growth of weeds and grasses and an absence of trees.

**Measurement Quality Objective (MQO)** – Describes the acceptable tolerance for each data element. MQOs consist of two parts: a statement of the tolerance and a percentage of time when the collected data are required to be within tolerance.

**Merchantable Sawtimber Top** – The point on the bole of sawtimber trees above which a sawlog cannot be produced. Minimum merchantable top is 7.0 inches DOB for softwoods and 9.0 inches DOB for hardwoods.

**Microplot** – A circular, fixed-radius plot with a radius of 6.8 feet that is used to sample trees less than 5.0 inches at DBH, as well as other vegetation.

**National Forest Land** – Federal lands which have been legally designated as National Forests or purchase units, and other lands under the administration of the Forest Service, including experimental areas and Bankhead-Jones Title III lands.

**Native American (Indian) Land** – Tribal lands held in fee, or trust, by the Federal government but administered for Indian tribal groups and Indian trust allotments. This land is considered “Private Lands”, Owner Group 40.

**Net volume** – Gross volume less deductions for rot, sweep, or other defect affecting use for timber products.

**Non-census Water** – Bodies of water from 1 to 4.5 acres in size and water courses from 30 feet to 200 feet in width.

**Nonforest Land** -- Land that does not support, or has never supported, forests, and lands formerly forested where use for timber management is precluded by development for other uses. Includes areas used for crops, improved pasture, residential areas, city parks, improved roads of any width and adjoining rights-of-way, power line clearings of any width, and noncensus water. If intermingled in forest areas, unimproved roads and nonforest strips must be more than 120 feet wide, and clearings, etc., more than one acre in size, to qualify as nonforest land.

**Nonstockable** – Areas of forest land that are not capable of supporting trees because of the presence of rock, water, etc.

**Other Federal Lands** – Federal land other than National Forests. These include lands administered by the USDI Bureau of Land Management, USDI National Park Service, USDI Fish and Wildlife Service, Department of Defense, Department of Energy, Army Corps of Engineers, and military bases.

**Overgrown Knot** – The scar left in the bark by a limb that has been completely overgrown, but still outlined by the circular configuration in the bark.

**OWNER CLASS** -- A variable that classifies land into fine categories of ownership.

**OWNER GROUP** – A variable that classifies land into broad categories of ownership; Forest Service, Other Federal Agency, State and Local Government, and Private. Differing categories of Owner Group on a plot require different conditions.

**Permanent water** – Canals, ponds, lakes, streams or swamps that, barring severe drought, will contain water year-round.

**Phase 1 (P1)** – FIA activities done as part of remote-sensing and/or aerial photography.

**Phase 2 (P2)** – FIA activities done on the network of ground plots formerly known as FIA plots.

**Phase 3 (P3)** – FIA activities done on a subset of Phase 2 plots formerly known as Forest Health Monitoring plots. Additional ecological indicator information is collected from Phase 3 plots.

**Plot** – A cluster of four subplots that samples approximately 1/6 acre. The subplots are established so that subplot 1 is centered within the sample and the centers of subplots 2, 3, and 4 are located 120 feet from the center of subplot 1 at azimuths of 360, 120, and 240 degrees, respectively. Each subplot has an associated microplot and annular plot

**Poletimber-size trees** – Trees at least 5.0 inches in diameter at breast height, but smaller than sawtimber size.

**PRIVATE OWNER INDUSTRIAL STATUS** – Indicates whether Private land owners own and operate a wood processing plant.

**Production crew** – a crew containing at least one certified individual. The crew is involved in routine installation of plots.

**Production plot** – a plot that belongs to the 6000-acre grid database. It may also be used for training purposes.

**REGENERATION STATUS** – A stand descriptor that indicates whether a stand has been naturally or artificially regenerated.

**Regional drift** – the tendency for standards, methods and interpretations to drift apart over time as each unit implements the FIA core protocol.

**Reserved Land** – Land that is withdrawn from timber utilization by a public agency or by law.

**Reversion** – A sample location or portion of a sample location that was non-forest in the previous inventory, but is now forest.

**RESERVE STATUS** – An indication of whether the land in a condition has been reserved.

**Rotten Cull Tree** – A live tree with less than 1/3 of its gross board-foot volume in logs that meet size, soundness and grade requirements, and more than 1/2 of the cubic-foot volume is rotten. Or, a live poletimber size that prospectively will have less than 1/3 of its gross board-foot volume in logs that meet size, soundness and grade requirements, and more than 1/2 of the cubic-foot volume is rotten.

**Rough Cull Tree** – A live tree with less than 1/3 of its gross board-foot volume in logs that meet size, soundness and grade requirements, and more than 1/2 of the cubic-foot volume is sound. Or, a live poletimber size that prospectively will have less than 1/3 of its gross board-foot volume in logs that



logs that meet size, soundness and grade requirements, and more than ½ of the board-foot cull is due to sound defects such as sweep, crook, etc.

**Roundwood Products** – Logs, bolts or other round sections cut from trees for industrial or consumer uses. (Note: includes sawlogs veneer logs and bolts; cooperage logs and bolts; pulpwood, fuelwood; pilings; poles; posts; hewn ties; mine timbers; and various other round, split, or hewn products.)

**Salvable dead trees** – Standing or down dead trees 5.0 inches DBH and larger that are currently merchantable. Tree class 2 and 3 trees can be salvable dead trees.

**Saplings** – Live trees 1.0 to 4.9 inches DBH.

**Sawlog portion** – That part of the bole of sawtimber-size trees between the stump and the sawlog top (7.0 inches DOB for softwoods, 9.0 inches DOB for hardwoods.)

**Sawtimber-size trees** – Softwoods must be at least 9.0 inches in diameter at breast height and hardwoods must be at least 11.0 inches in diameter at breast height.

**Seedlings** – Live hardwood trees less than 1.0 inch DBH that are at least one foot tall and live softwood trees less than 1.0 inch DBH that are at least 6 inches tall. Longleaf pine has no minimum length, but must be ½ -inch diameter at the root collar .

**Site Class** – A classification of forest land that indicates the potential capacity to grow crops of industrial wood based on fully stocked natural stands.

**Softwoods** – Coniferous trees, usually evergreen having needles or scale-like leaves.

**STAND AGE** – A stand descriptor that indicates the average age of the live trees not overtopped in the predominant stand size-class of a condition.

**STAND DENSITY** – A stand descriptor that indicates the relative tree density of a condition class. The classification is based on the number of stems/unit area, basal area, tree cover, or stocking of all live trees in the condition which are not overtopped, compared to any previously defined condition class tree density.

**STAND SIZE** – A stand descriptor that indicates which size-class of trees that are not overtopped constitutes the majority of stocking in the stand.

**Standing dead (snags)** – Standing dead trees 5.0 inches in diameter and larger, at least 4.5 feet tall, and less than 45 degrees lean from vertical. Trees do NOT have to be self-supported. They may be supported by other trees.

**State, County and Municipal Lands** – Lands owned by states, counties, and local public agencies or municipalities, or lands leased to these government units for 50 years or more.

**Stocking** – The relative degree of occupancy land by trees, measured as basal area or the number of trees in a stand by size or age and spacing, compared to the basal area or number of trees required to fully utilize the growth potential of the land; that is, the stocking standard.

**Sound Knot or Limb** – Knots or limbs that are intergrown, or encased, with the surrounding wood, and that show no signs of decay. Bark may not be present on the limbs.

**Subplot** – A circular, fixed-area plot with a radius of 24.0 feet. Each subplot represents  $\frac{1}{4}$  of the fixed plot sample unit.

**TOTAL LENGTH** – The total length of the tree, recorded to the nearest 1.0 ft from ground level to the tip of the apical meristem. For trees growing on a slope, measure on the uphill side of the tree. If the tree has a broken or missing top, the total length is estimated to what the length would be if there were no missing or broken top. Forked trees should be treated the same as unforked trees

**Training plot** – a plot established for training or certification purposes only. It does NOT belong to the 6000-acre grid database.

**Transition Zone** – An area where a distinct boundary between two or more different conditions cannot be determined.

**TREE GRADE** – A classification base on external characteristics as indicators of quality or value.

**Upper Stem Portion** – The part of the bole of sawtimber trees above the sawlog top to a minimum top diameter of 4.0 inches DOB, or to the point where the central stem breaks into limbs.